

**CLAIMS**

1. Diffusing substrate (20) comprising a glass substrate (21) and a diffusing layer (22) deposited on the said glass substrate, characterized in that the glass substrate (21) has a light transmission at least equal to 91% calculated over the 380 to 780 nm wavelength range according to the EN 410 standard.  
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- 10 2. Diffusing substrate according to Claim 1, characterized in that the light transmission is at least equal to 91.5%.
- 15 3. Diffusing substrate according to Claim 1, characterized in that the glass substrate (21) has a total iron content such that:  
$$[\text{Fe}_2\text{O}_3]_t \leq \frac{7110}{(1.52 \times e + 0.015) + (17.24 \times e + 0.37) \times \text{redox}}$$
with  $[\text{Fe}_2\text{O}_3]_t$  expressed in ppm and corresponding to the total iron in the composition,  $e$  being the thickness of the glass in mm and the redox being defined by  $\text{redox} = [\text{FeO}] / [\text{Fe}_2\text{O}_3]_t$ , the redox being between 0 and 0.9.  
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- 25 4. Diffusing substrate according to Claim 2, characterized in that the glass substrate (21) has a total iron content such that:  
$$[\text{Fe}_2\text{O}_3]_t \leq \frac{2110}{(1.52 \times e + 0.015) + (17.24 \times e + 0.37) \times \text{redox}}$$
with  $[\text{Fe}_2\text{O}_3]_t$  expressed in ppm and corresponding to the total iron in the composition,  $e$  being the thickness of the glass in mm and the redox being defined by  $\text{redox} = [\text{FeO}] / [\text{Fe}_2\text{O}_3]_t$ , the redox being between 0 and 0.9.  
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- 35 5. Diffusing substrate according to any one of the preceding claims, characterized in that the diffusing layer (22) is composed of agglomerated particles in a binder, the said particles having a

mean diameter of between 0.3 and 2 microns, the said binder being in a proportion of between 10 and 40% by volume and the particles forming aggregates whose size is between 0.5 and 5 microns.

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6. Diffusing substrate according to Claim 5, characterized in that the particles are semi-transparent particles and preferably mineral particles, such as oxides, nitrides and carbides.
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7. Diffusing substrate according to any one of the preceding claims, characterized in that the glass substrate (21) has a glass composition based on at least the following constituents:
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	% by weight
SiO <sub>2</sub>	65-75
Al <sub>2</sub> O <sub>3</sub>	0-5
CaO	5-15
MgO	0-10
Na <sub>2</sub> O	5-20
K <sub>2</sub> O	0-10
BaO	0-5
ZnO	0-5

8. Diffusing substrate according to Claim 1 or 2, characterized in that the glass substrate (21) has a minimum light transmission of 91.50% for a thickness e of at most 4.0 mm, with a total iron content of 200 ppm and a redox of less than 0.05.
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9. Diffusing substrate according to Claim 1, characterized in that the glass substrate (21) has a minimum light transmission of 91% for a thickness e of at most 4.0 mm, with a total iron content of 160 ppm and a redox of 0.31.
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10. Diffusing substrate according to Claim 2, characterized in that the glass substrate (21) has a minimum light transmission of 91.50% for a thickness  $e$  of at most 1.5 mm, with a total iron content of 160 ppm and a redox of 0.31.
11. Diffusing substrate according to Claim 1, characterized in that the glass substrate (21) has a minimum light transmission of 91% for a thickness  $e$  of at most 1.2 mm, with a total iron content of 800 ppm and a redox of 0.33.
12. Diffusing substrate according to Claim 1, characterized in that the glass substrate (21) has a minimum light transmission of 91% for a thickness  $e$  of at most 1.2 mm, with a total iron content of 1050 ppm and a redox of 0.23.
13. Use of a diffusing substrate as described in one of Claims 1 to 12 for producing a backlighting system.
14. Use according to Claim 13, for which the backlighting system is provided in an LCD screen.
- 25 15. Use according to Claim 13, for which the backlighting system is provided in a flat lamp.